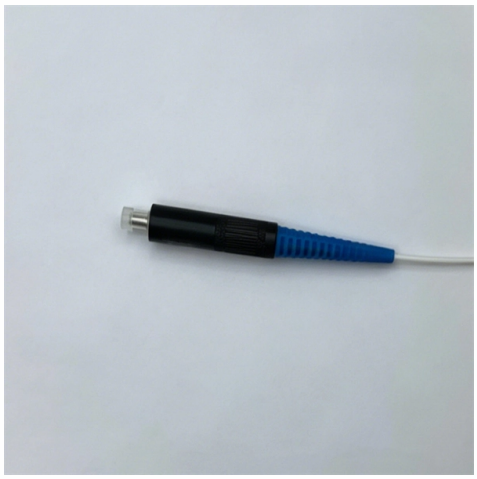
1u chassis international standard length and width



Overview

The rack unit size is based on a standard rack specification as defined in -310. The specifies a standard rack unit as the unit of height; it also defines a similar unit, (HP), used to measure the width of rack-mounted equipment. The standard was adopted worldwide as IEC 60297 Mechanical structures for electronic equipment – Dimensions of mechanical structures of the 482.6 mm (19 in) series, and defines the sizes for rack, subrack (a shelf-like chassis in which cards can be insert.

Key Takeaways

A 1U chassis has a standardized height of 1. 75 inches (44. 45 mm) and a width of 19 inches (482.

6 mm).

Standard Height and Width

The height of a 1U chassis is defined as 1. 75 inches (44. 45 mm) according to the EIA-310-D standard, which is widely adopted internationally for 19-inch rack-mounted equipment.

The width is standardized at 19 inches (482. 6 mm), ensuring compatibility across servers, switches, and other rack-mounted devices. These dimensions are consistent with global standards including IEC 60297-2 and DIN 41494, which facilitate interoperability in telecom, IT, and industrial applications.

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Depth and Mounting Considerations

While the height and width are fixed, the depth of a 1U chassis can vary, typically ranging from 17 to 21 inches (430–533 mm), depending on manufacturer and intended use. Real-world 1U devices are often slightly shorter in height (around 1. 72–1.

74 inches) to prevent binding during installation. Mounting hole patterns may differ (square, round, or threaded), so verifying compatibility with your rack is essential.

Global Standard Compliance1

U chassis dimensions are designed to comply with EIA-310-D, IEC 60297-2, and DIN 41494 standards, ensuring that equipment from different manufacturers can be installed in the same rack without modification. This standardization is critical for data centers, telecom cabinets, and industrial control systems, allowing for modular expansion and consistent airflow management.

Practical Notes

Always check the usable depth of your rack to ensure proper fit and airflow. Consider weight capacity and structural rigidity when installing multiple 1U devices. Verify industry compliance (UL, CE, FCC, NEBS, ETSI) for safety and operational standards.

Depth variations may affect cabling, cooling, and expansion options, so plan accordingly. By adhering to these standardized dimensions, a 1U chassis ensures interoperability, efficient space utilization, and reliable installation across global rack systems.

Article Content

What Is a 1U Server Rack Size? Exact Dimensions & Mounting Guide

A 1U server rack measures exactly 1.75 inches (44.45 mm) in height and fits standard 19-inch racks. Learn why equipment must stay *under* that limit, how depth varies, and how to verify

What Is 1U Rack Size? Height, Width, Depth in Inches & mm

Height: Exactly 1.75 inches (44.45 mm) — no rounding, no variation. This is the maximum allowable vertical footprint for any 1U device. Width: 19 inches (482.6 mm) — measured

Rack unit

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The rack unit size is based on a standard rack specification as defined in EIA-310. The Eurocard specifies a standard rack unit as the unit of height; it also defines a similar unit, horizontal pitch (HP), used to measure the width of rack-mounted equipment. The standard was adopted worldwide as IEC 60297 Mechanical structures for electronic equipment – Dimensions of mechanical structures of the 482.6 mm (19 in) series, and defines the sizes for rack, subrack (a shelf-like chassis in which cards can be insert

Enterprise Core Systems Engineering Reference Manual: 1U

REGULATORY COMPLIANCE The 1U rackmount chassis has been verified to conform with the following standards based on the mechanical and electrical integration guidelines:

Server Rack Sizes: The Complete Guide to Standard,

Below is a comprehensive, fully detailed guide covering all standard server rack sizes, form factors, height considerations, depth classifications, and

Dimensions of 1U: Standard Height & Width Explained

Selecting the right 1U component requires a structured approach aligned with technical, operational, and cost-based criteria. B2B buyers must evaluate specifications, integration potential, and long-term

1U vs 2U vs 4U Servers: What “U” Means & How to Choose in 2026

Learn what a rack unit (U) is, how 1U/2U/4U differ, and how to pick the right chassis height for disks, PCIe/GPU, noise, power, rails, and airflow. □□ Checklist included.

Custom Aluminum Server Rack U Dimensions: A Complete Guide to

What are server rack U dimensions? The standard is 44.5 mm with precise height, width, and depth critical for compatibility, proper mounting, and reliable performance in professional environments.

Server Rack Sizes & Dimensions Guide 2026

Common server rack sizes are 19-inch width, heights like 42U or 48U, and depths from ~24″ to 48″. Choose size based on equipment type, cooling, space, and future growth.

Rack Units (RU): Sizes, Standards & Uses 2026

One rack unit (1U) equals exactly 1.75 inches or 44.45 millimeters in height. So, if you''re installing a 2U server, it will take up 3.5 inches (88.9 mm) of vertical space in your rack.

What Is 1U Server Rack Size? Exact Dimensions in Inches & mm

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Width includes ears — not chassis: The “19-inch” specification refers to the distance between the inner edges of mounting flanges (ears), not the device''s body width. A 1U server may be

Standard Server Rack Dimensions: Depth, Width,

Discovering the Essentials: Server Rack Dimensions Unraveled! □□ Demystify Server Rack Size & Standard Dimensions □□ Exploring Network Rack Dimensions and

U Rack Dimensions — What Is U in Server Rack?

The standard 1U rack size equals 1.75 inches (44.45 mm). To determine the number of rack units (U) a device will occupy, divide its height by 1.75 inches. For

How big is 1 server unit in height, width and depth?

The width is fairly standard as others have mentioned. What you should do is figure out what you need from a server. Figure out the kind of CPU power you need, how much disk drive space is needed,

Understanding Rack Mount System Sizing

This unit has been defined by Electronic Industries Alliance (EIA) as the standard for sizing rack mount equipment. 1 Rack Unit or 1U is 1.75 inches (44.45 mm) high. Systems which are

Server Rack Size Guide: Choosing the Right Rack for

Find the perfect server rack size for your data center. Understand rack units (1U, 2U, 4U), dimensions like 1.75 inches/44.45 mm, and available

Choose the Perfect Rackmount Server Case: 1U to 4U Guide

Conclusion: Choosing the Right U for Your Needs Selecting the perfect rackmount server case, from a compact 1u server chassis to a more expansive 4U option, requires careful

Standard Rack Size

One rack unit (1U) is 1.75″ (44.45 mm) of vertical space, or typically the equivalent of three rack hole spaces tall. One of the first criteria to consider when purchasing a rack is how many RUs your

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